Western Tidewater Health District

Food Handlers Training Book

The food handler test is offered on the following days and times:

Suffolk - Tuesday: 9:00 - 11:00 AM
Thursday: 2:00 - 4:00 PM

Franklin - Wednesday: 2:00 - 4:00 PM

Isle of Wight -Thursday: 2:00 - 4:00 PM

The cost of the card is $10.00 cash.
(Two year expiration date)
**Please bring the exact amount of cash required.

INTRODUCTION

Why Read This Book?

It is important that food service establishments be kept clean and sanitary. It is even more important to properly handle foods to prevent people from becoming sick.

Failure to follow good food handling practices often leads to foodborne illness. Following good food handling practices reduces loss from food spoilage and protects the reputation of your business through the prevention of foodborne illness.

This booklet is to provide a basic understanding of food safety. You will be provided with guidelines in handling, preparing, and serving food safely. Understanding the principles of temperature control, preventing contamination of foods, personal hygiene, cleaning and sanitizing are the goals of safe food handling.

Use this booklet as a reference to answer questions about proper food handling in your establishment. If questions arise, call your local health department for assistance.

*** Remember that **all** food service personnel are responsible for safe food handling!

WHY FOOD SAFETY IS IMPORTANT?

Food safety is important because it:

- Protects you
- Protects other co-workers
- Protects customers
- Is good business
- Is the LAW

FOODBORNE ILLNESS

- **Foodborne illness is a disease that is transmitted to humans through food**.
- 76 million cases of foodborne illness occur each year in the United States.
- **Bacteria in red meat, poultry, raw eggs, and raw and partially cooked seafood cause most cases of foodborne illness.**
- About 325,000 cases of foodborne illness are severe enough to require hospitalization.
- About 5,000 victims die each year from foodborne illness.
- In the U.S., illness caused by foodborne contaminants are estimated to cost up to $35 billion annually in medical costs and lost productivity.
- Those especially susceptible to foodborne illness are pregnant woman, children, the elderly, and people with weakened immune systems (may include those with cancer, kidney and liver diseases, HIV/AIDS, etc).

SYMPTOMS OF FOODBORNE ILLNESS

- Severity of symptoms range from mild to severe.
- **Most common**: **nausea, vomiting and diarrhea**.
- Additionally symptoms may include: cramps, headache, muscle aches, fever and chills.
- Symptoms may start a few minutes to a few days after eating the contaminated food.
- When symptoms begin depends on the type and amount of bacteria in the food.
- Symptoms of foodborne illness can last for hours, days, months, and possibly longer.

FIVE MAJOR RISK FACTORS THAT CAUSE FOODBORNE ILLNESS

1. Poor personal hygiene
2. Improperly hot holding and cold holding food (allowing foods to be in the **temperature danger zone between 41°F and 135°F**)
3. Improper cooling methods
4. Improper cooking temperatures (not cooking foods to required temperatures)
5. Contaminated Equipment (not properly cleaning and sanitizing equipment)

**Each of these risk factors will be described in detail in this booklet and questions will be found on the food handlers test*

What Makes People Sick from Food?

- **Bacteria, Viruses, Parasites, Chemicals and Physical Contamination**
- **Potentially hazardous foods** are foods that are moist and have nutrients that the bacteria need to grow. Some examples of potentially hazardous foods are meat, fish, poultry, milk, re-fried beans, cooked rice, baked potatoes, cooked vegetables, etc.
- Bacteria are smaller than the eye can see and are found almost everywhere.
- Bacteria can double in number every 10 to 30 minutes, and multiply to numbers that can make people sick within a few hours.
- It is important to handle foods properly to prevent bacteria from multiplying and causing foodborne illness.
- A **virus** can also cause illness when it gets into food.
- You can have a virus and not know it. Even before you start feeling sick, you may be passing viruses into the food by not washing your hands after coughing, sneezing or using the toilet.
- **Parasites** are tiny worms that live in fish and meat. Cooking fish and meat to the proper temperature will kill parasites.
- People can get sick when **chemicals or other substances** get into food. Be sure to keep them away from food and equipment.
- **Physical contamination** occurs when foreign objects are accidentally introduced into food. Food items may arrive already contaminated with dirt and pebbles. Other physical contaminants include broken glass, metal pieces, artificial fingernails, etc.

WHAT TO DO IF YOU OR A CUSTOMER GETS A FOODBORNE ILLNESS?

STOP, SAVE, NOTIFY!

- **STOP** serving the food items that may have caused the illness.
- **DO NOT** throw away the foods. **SAVE** the food in the refrigerator after clearly marking it so all employees know they are not to be used.
- **NOTIFY your manager and call the health department immediately!**
- The health department will help you try to determine how the foodborne illness occurred and how you may prevent it from happening again.

I. PERSONAL HYGIENE

Employee Health:
Your Own Health Comes First!

IF YOU ARE SICK YOU SHOULD NOT BE AT WORK! Illnesses can be spread when you touch food, dishes, counters, utensils, and other people. Please report to your manager if you have any of the following symptoms:

- Fever
- Fever and sore throat
- Diarrhea
- Vomiting
- Jaundice (have yellowing of the skin and eyes)
- **Infected** boils, burns, cuts or sores on your hands, wrists, or exposed portions of the arm. Food may be handled if you cover the injury with a clean, water-proof covering and other protection as needed (example: wearing a latex-free glove).

Also, Report These Illnesses to Your Manager and the Health Department:

1. Typhoid Fever
2. Shigellosis
3. E.Coli (Shiga toxin)
4. Hepatitis A
5. Norovirus

HANDWASHING!

Prevent the Spread of Disease

Just because hands look clean, does not mean they are clean!

Wash your hands often when working with food and drinks - this helps to get rid of many of the germs that can make people sick. Germs such as **bacteria** and **viruses** are everywhere, especially on hands and under fingernails. If hands are not washed correctly and fingernails trimmed, dirty hands can put germs in food that will be eaten by you, your co-workers, and your customers.

Wash your hands at the handsink for **20 seconds** (or the time it takes to sing "Happy Birthday" twice) with warm running water and soap. This includes the areas under fingernails, between fingers, and the forearms. Dry them with clean paper towels or with an air dryer.

Remember to wash your hands:

- **When arriving to work.**
- **Before** touching anything used to prepare food
- **Before** putting on latex-free gloves and after you remove them
- **During** food preparation, as often as necessary to remove soil and contamination and to prevent cross contamination
- **After** working with **raw** meat, fish and poultry
- **After** handling trash or taking out the garbage
- **After** handling soiled equipment or utensils
- **After** cleaning or using chemicals
- **After using the restroom!**
- **After** eating, drinking, smoking
- **After** touching bare human body parts other than clean hands and clean exposed portions of arms.
- **After** blowing your nose, coughing or sneezing, or using a handkerchief or disposable tissue

Hand Sanitizers - Sanitizer dips or hand sanitizers **are not** approved handwashing techniques and are not acceptable substitutes for handwashing.

Fingernails - Clean beneath fingernails! Fingernails must be trimmed, filed, and maintained. This avoids the possibility of fingernails, or pieces of fingernails, from ending up in the food due to breakage. **Failure to remove "poop" from beneath the fingernails can cause illness!**
***Remember**: if you wear artificial nails or nail polish, you must wear gloves without tears or holes (intact) when working with food!

Jewelry-Do not wear jewelry on your arms or hands while preparing food!
A plain ring such as a wedding band is the only exception. Jewelry such as rings, bracelets, and watches act as a hiding place for bacteria and viruses. An additional hazard associated with jewelry is the possibility that pieces of the item or the whole item itself may fall into the food.

Proper Attire
Wear clean clothing at all times.
Do not wipe your hands on your clothing or other unclean items such as wiping cloths.

Personal Hygiene
Keep your body and hair clean. Always wear a hair restraint (cap, hat, net, etc.) Facial hair must be well maintained and covered. Hair restraints are worn to keep hair out of food and to keep hands away from hair.

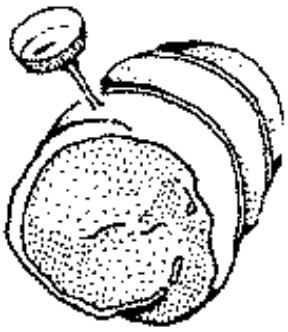
II. HOT HOLDING AND COLD HOLDING
FOOD TEMPERATURE CONTROL

TEMPERATURE DANGER ZONE (between 41°F and 135°F)

The **Temperature Danger Zone** is the range **between 41°F and 135°F.** Bacteria grow best between these temperatures. Food can not be in the Temperature Danger Zone for **more than 4 hours.** Foods left in the Temperature Danger Zone for more than four hours must be discarded! Even reheating the food will not work, so throw it away!

TEMPERATURE CONTROL

- Temperature control is used to kill or stop the growth of bacteria that may cause foodborne illness through cooking or keeping food at proper hot and cold temperatures
- Thermometers are used to ensure that refrigeration and hot holding equipment are functioning properly and to monitor required cooking, reheating and cooling temperatures.
- All hot and cold holding equipment need working thermometers either mounted on the outside of the equipment or placed inside the equipment at the front near the opening of the unit. Don't place thermometers on or near cooling mechanisms.
- An accurate metal stem probe food thermometer is used to check food temperatures.
- The metal stem thermometer must have a range of at least 0°F-200°F (accurate to ±2°F) to accurately measure hot and cold food items.



- **Using a thermometer to check the temperature of the food, in the thickest part-usually the center, is the only way to know if it is at the proper temperature.** Always wash and sanitize thermometers before and after each use.
- Don't rely solely on thermostat settings or air temperature readings as indicators that foods are at the required temperatures.
- Refrigerators must be capable of holding food at 41°f or below.
- Hot holding equipment must be capable of holding food at 135°F or above.
- If any refrigerator, freezer, or hot holding equipment is not holding food at the proper temperatures, remove the food and place it in a working unit. Have the broken unit fixed!

Check the accuracy of your food thermometers often! This is called "calibration". To calibrate your thermometer, place it in 50/50 ice water slush and wait for the needle to stop. If the needle does not stop at 32°F, turn the calibration nut (on the underside of the dial) until the needle reads 32°F. You can also place the thermometer in a cup of boiling water and wait until the needle reaches 212 °F. If the needle does not stop at 212°F, turn the calibration nut until the needle reads 212°F.

KEEP FOOD COLD!

Always keep cold foods at 41°F or colder.

Remember:

- Refrigeration units must hold all potentially hazardous foods at 41°F or below.
- Adequate air circulation is needed for the refrigeration unit to work properly and maintain cold temperatures. Store food so air can circulate.
- The pans and dishes must have space between them; do not crowd them. Do not stack pans on top of each other.
- Do not cover the food while it is cooling this will only trap the heat inside the pan and food.
- Do not cover refrigerator or freezer shelves with metal, foil or other materials. **Do not overfill refrigerator, freezers, and refrigerated preparation units**.
- Cover all foods in these units!
- Keep all unit doors closed, including the tops of food preparation refrigerators.
- Ice may be used to help keep cold foods below 41°F when used at salad bars, prep tables, or for foods on display.
- When using ice instead of a refrigerator, foods must already be below 41°F before placing in ice.
- The container of food should be packed in ice up to the **level of the food**.
- Stir the foods to make sure food in the center of the container is cold as well as the food along the edges of the container.

KEEP FOOD HOT!

Always keep hot foods at 135°F or hotter.

Remember:

- After the food is cooked and ready to serve, keep it at **135°F or hotter** to stop bacteria from growing.
- Turn on steam tables, soup warmers and heated surfaces ahead of time so that they will be hot enough when cooked food is placed inside
- Set the temperature control of hot holding equipment high enough to maintain food product temperatures at **135°F or hotter** at all times.
- The only way to know that hot food is hot enough is to use a stem thermometer to check the temperature of the food.
- **Never heat cold foods in hot holding equipment (example: a steam table or crock pot)!**
- Stir food to keep the food **135°F or hotter**!
- Covering pans will help keep the heat inside.

III. COOLING METHODS

When cooling foods, it is important to move the food through the "Temperature Danger Zone" as quickly as possible to keep the food safe.

-There is always a chance that bacteria and viruses can grow when you cool food!

-Speed is Important with Cooling - If food must be prepared in advance or saved for leftovers, cool it **fast** to prevent bacteria and viruses from growing.

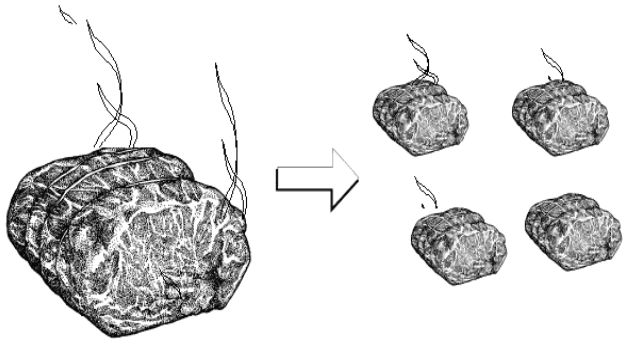
-There are several ways to cool food:

- No matter how food is cooled, it must drop from 135°F to 70°F within 2 hours and then the temperature must drop from 70°F to 41°F within 4 hours, for a total of 6 hours to complete the cooling process.
- If potentially hazardous foods are prepared from ingredients at room temperature, they shall be cooled to 41°F or less within 4 hours.

Cooling Solid Foods

- When cooling solid cooked foods such as roast, turkey, and solid cuts of meat, be sure to:

1. Cut large pieces of meat into smaller portions. This will help to cool them faster.
2. Place in the refrigerator or freezer to cool.



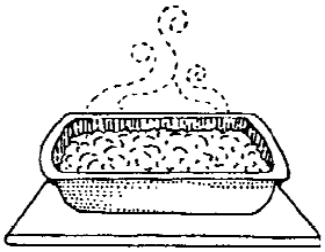
Cooling Soft/Thick Foods

- Examples of soft/thick foods are refried beans, rice, potatoes, stews, chili, thick soups, thick sauces, etc.

-Cool by pouring food into shallow metal pan(s), so food is not more than 2 inches thick.

-When cooling food in shallow metal pans, be sure to:

1. Pour hot food into shallow pans. The shallower the pan the faster the food will cool.
2. Stirring food helps the food cool faster.
3. Once food cools to 41°F, you can place food in a larger container and cover it.

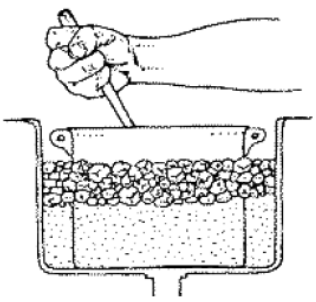


Cooling Liquid Foods

-Shallow metal pans, ice and water bath, or cooling wands to cool thin soups and sauces.

-If cooling food with an ice bath:

1. Close the drain in a large sink. Place the container of the hot food in the sink.
2. Fill the sink with ice and cold water **up to the level of food in the pan**
3. Stir the soup or sauce often so that it cools all the way to the center. Ice paddles or cooling wands can be used to speed the cooling process.
4. Add more ice as ice melts



***Remember** use a food thermometer to check the temperature of the food while it is cooling. A cooling chart is a good tool to use to track proper cooling.

PROPER THAWING

Proper thawing requires that you plan ahead. There are only **4 approved methods** for thawing or defrosting potentially hazardous foods:

1. **Thaw food in the refrigerator, at 41°F or colder**.
2. **Thaw in a microwave oven**, only when the food will be immediately transferred and cooked in oven, grill, pan, etc, or when the entire, uninterrupted cooking process takes place in the microwave oven.
3. **Thaw food as part of the cooking process**.
4. **Thaw food under continuously running water**. Food must be completely submerged in a container with running water over it. The temperature of the water shall be 70°F, or below, and shall have sufficient water hard and fast enough to agitate and float off loose food particles with the overflow. The temperature of thawed portions of the food shall not rise above 41°F or higher.

It is dangerous to cook large frozen roasts, frozen turkeys or stuffed turkeys because their size keeps the inner portions from reaching safe cooking temperatures. If the food is properly thawed, the heat can reach the center of the food faster.

Remember:
It is **NEVER** acceptable to thaw potentially hazardous foods on the counter at room temperature or in warm water. These methods may allow dangerous bacteria to multiply to levels high enough to cause illness.
***PLAN AHEAD!** It is also best to thaw in a refrigerator!

DATE MARKING

Ready-to-eat potentially hazardous foods must be date marked with either the preparation date, use-by date, or date the commercial package was opened.

-The food can be stored for 7 days when the refrigerator maintains **41°F** or colder. -Food older than 7 days must be discarded.
-Food made and used within one day is not required to be date marked.

IV. COOKING FOOD SAFELY		
Animal Product	**Minimum Temperature**	**What to Know?**
Poultry, Ground Poultry	**165°F for 15 seconds**	Stuffing should be cooked outside of poultry.
Stuffing, Stuffed Meats, Casseroles and dishes combining raw and cooked food	**165°F for 15 seconds**	Stuffing acts as an insulator, preventing heat from reaching the meat's center. Stuffing should be cooked separately.
Ground or Flaked Meats hamburger, ground pork, flaked fish, ground game animals, sausage, injected and pinned meats	**155°F for 15 seconds**	Grinding meat mixes the organisms from the surface into the meat.
Pork, Beef Steaks, Veal Lamb, Commercially Raised Game Animals	**145°F for 15 seconds**	This temperature is high enough to destroy Trichinella larvae that may have infested pork.
Beef or Pork Roasts	**145°F for 4 minutes**	Alternative minimum internal cooking temperatures for beef and pork roasts: 130°F for 112 minutes 135°F for 36 minutes 138°F for 18 minutes 140°F for 12 minutes 142°F for 8 minutes 144°F for 5 minutes
Fish, Foods containing fish, and Seafood	**145°F for 15 seconds**	Stuffed fish should be cooked to 165°F for 15 seconds. Fish that has been ground, chopped, or minced should be cooked to 155°F for 15 seconds
Shell Eggs for immediate service	**145°F for 15 seconds**	Only take out as many eggs as you need. Never stack egg flats near the grill or stove. Eggs must be hot held at 135°F.
Foods cooked in Microwave Meat, Poultry, Fish, Eggs	**165°F let it stand for 2 minutes**	Cover food, rotate or stir it halfway through the cooking process. Check temperature with a thermometer.

REHEATING LEFTOVER FOOD

- **Potentially hazardous food that is cooked and then refrigerated shall be rapidly reheated (in 2 hours or less) to 165°F**, or higher.
- Steam tables, bainmaries, warmers, crock-pots, and similar hot food holding equipment are prohibited for reheating food.

Remember:
It is not always possible to identify food contamination by appearance, smell, or taste. Food may appear to be safe even when they contain large numbers of harmful bacteria.

IF IN DOUBT, THROW IT OUT!

PROPER BREADING PROCEDURES

Dry breading, containing flour, cornmeal, spices, and etc., that is used to dip raw animal foods repeatedly, may be used for 7 days and stored at room temperature, provided that:

- Containers are stored covered in a clean dry area overnight and/or when not in use;
- The breading mixture is sifted at a minimum of every 4 hours to remove excess moisture and dough balls; and
- Containers are completely emptied and cleaned and the breading mixtures are discarded at intervals no greater than 7 days

The person in charge must have a system in place to indicate the date the breading must be discarded. **For batters or other coatings containing milk, eggs, or other potentially hazardous foods, these rules do not apply.**

V. PROPER CLEANING AND SANITIZING OF CONTAMINATED EQUIPMENT

FOOD CONTACT SURFACES

Surfaces of equipment and utensils with which food normally comes in contact are considered to be food contact surfaces. Examples: meat slicers, knives, plates, glasses, cutting boards, utensils, pots, pans, grills, etc.

- **Cleaning** is the removal of dirt and stains from a surface using hot water, detergent, and clean rinse water.
- **Sanitizing** is reducing the number of harmful bacteria by using very hot water or a chemical sanitizing solution on a surface after it has been cleaned.

CLEANING AND SANITIZING USING A 3 COMPARTMENT SINK

Manual cleaning and sanitizing of pots, pans, and utensils requires a 3-compartment sink large enough to submerse the largest item to be washed, rinsed, and sanitized. Ideally, the sink should include 2 drainboards, located on each end of the sink. One drainboard is used for soiled items and the other for cleaned and sanitized items. The following steps should be used when manually sanitizing dishes:

Step 1 -Scrape and soak equipment and utensils to remove large food particles and dirt.

Step 2 - **Washing** takes place in the **first sink.** This sink contains **detergent** and **hot water.** Change water often to keep it hot and clean. **Never add bleach to the wash water**.

Step 3 - **Rinsing** takes place in the **second sink**. This sink contains **clean water**. Rinsing removes detergent and food particles. Change rinse water before it becomes soapy or dirty.

Step 4 - **Sanitizing** takes place in the **third sink**. This sink contains a **sanitizing agent (usually bleach or Quaternary ammonia)** and **water**. Do not rinse equipment and utensils after sanitizing.

Step 5 - **Air dry** equipment and utensils.

APPROVED SANITIZING METHODS

- **Immersion** for **30 seconds** in clean, **hot water** at a temperature of **171°F**.
- **Immersion** in a clean solution of **50-200ppm (parts per million)** of **chlorine bleach** at a water temperature of **75°F**. **100ppm is optimal**.
- **Immersion** in a clean solution containing **12.5ppm of iodine** at a water temperature of **75°F**.
- **Immersion** in a clean solution containing **200-400 ppm quaternary ammonium** at a water temperature of **75°F**.
- A test kit that accurately measures the required concentration of the sanitizing solution must be provided. *Each time a sanitizing solution is made, the test kit MUST be used to insure proper concentrations.

HOW TO MAKE 100ppm CHLORINE BLEACH SANITIZING SOLUTION

- Add 1 tablespoon of chlorine bleach to 1 gallon of water.

OR

- Add 1/2 teaspoon of chlorine bleach to 1 quart of water.

STORAGE OF WIPING CLOTHS

- Wiping cloths should be kept clean and sanitary at all times.
- Use a **bleach water** solution at **50 – 200ppm** (or other sanitizer approved by the Health Department) and change the solution often.
- Wiping cloths properly stored and rinsed in a sanitizing solution will kill bacteria on all surfaces they contact.
- Wiping cloths that are not properly stored and rinsed in a sanitizing solution can actually contaminate surfaces and spread bacteria.
- When not in use, wiping cloths should be stored in the sanitizing solution.
- Cloths used for cleaning **food contact** surfaces must be identified and used for no other purpose.
- Cloths used for cleaning **non-food contact** surfaces must be identified and used for no other purpose.

CLEANING AND SANITIZING USING A DISHWASHING MACHINE

- Check the cleanliness of the machine before using.
- Be sure the wash and rinse tanks contain clear water and spray arms are not blocked.
- Check detergent and sanitizer levels. *Make sure the sanitizer comes into the machine and use your test kit to make sure you have the proper concentration before using the machine.
- Scrape and soak items to be washed separating flatware and utensils.
- Load dishes into the tray. Make sure all item surfaces are exposed to the spray.
- Check the temperature gauges on the machine.
- Check the data plate on the machine. This data plate will tell you what temperature each cycle should reach and how long the cycle should run. It will also tell you how many parts per million (ppm) for chemical sanitizers or the required temperature for heat sanitizing.
- Hot water must be at least **150°F** for the **wash temperature** and **180°F** for the final sanitizing **rinse** for high temperature machines.
- For machines using a **chlorine chemical sanitizer**, the proper concentration is **50-200ppm** (parts per million) **chlorine**. Concentration must be tested using a chlorine test kit.
- After dishes have completed the machine cycle, let them air dry.
- Any items that appear soiled should be run through the cycle again. Check the machine to see if it is operating correctly.

STORAGE OF CLEAN EQUIPMENT AND UTENSILS

Equipment and utensils should be stored to protect the food contact surfaces from contamination.

- Always store in clean, dry areas.
- Store off the floor to protect from dust and splash.
- Store away from sewer lines, water lines and open stairwells.
- Cups and glasses should be stored upside down.
- Plates, dishes, bowls, pots and pans should be stored upside down.
- Allow cups, plates, dishes, bowls, pots and pans, etc to air dry before stacking!
- Utensils should be stored with only the handles exposed (handles up).

STORAGE OF FOOD UTENSILS

Between uses, dispensing or in-use utensils such as knives, ladles, scoops, etc. should be stored:

- On a clean portion of equipment if the equipment is cleaned and sanitized at least every 4 hours.
- In a running water dipper well- water has to run hard and fast enough to flush particles to the drain if used with moist foods such as ice cream or mashed potatoes.
- In the food with the handle extending out of the food
- In a clean, protected location if the utensils, such as ice scoops, are used only with a food that is not potentially hazardous.
- In a container of water if the water is maintained at a temperature of at least 135°F and the container is cleaned frequently.

SAFE STORAGE PRACTICES

Cross contamination happens when bacteria from one food or piece of equipment gets into another food or onto another piece of equipment.

Here are some important ways to prevent **cross contamination.**

-Store raw meat, fish and poultry on the lower shelves of the refrigerator.

*A good way to remember proper storage is to place raw foods or foods that require higher cooking temperatures below foods requiring lower cooking temperatures or are ready to eat. Your Health Department has a chart that will help you with this. Just ask for one if it's not provided. *

-Don't let raw meats; beef, pork, lamb, fish or poultry drip onto foods that will not be cooked before serving.

-Keep different types of raw meat separate from each other.

-Store unwashed food or raw food away from ready-to-eat food.

-Wash hands immediately after handling raw meat, raw poultry, raw fish, or any raw food.

FOOD STORAGE

- First In, First Out, **(FIFO)** is a method of storage rotation where food received first is used first. Date all food. Place new food behind older foods.
- Dry storage items should be kept at least 6 inches off the floor and away from walls. In addition, food should be stored away from pipes and condensation lines.
- **Refrigerated food must be kept at 41°F**; therefore, the refrigerator itself must be kept colder.
- Monitor the temperatures of refrigerators and food by checking thermometers in the refrigerators and product temperatures.
- Always store refrigerated raw food beneath ready-to-eat food to prevent drippings (example: blood) from contaminating cooked food and produce.
- **Food stored in the freezer should be kept frozen**.

BARE HAND CONTACT WITH FOOD

Hands are contaminated with many types of bacteria that can make people sick if they get into foods. Minimize hand contact whenever possible.

- Avoid bare hand contact with food.
- Use utensils, deli papers, etc. whenever possible.
- Use disposable plastic, food grade gloves. Try to avoid latex gloves whenever possible as a safeguard to those allergic to latex.
- Never mix salads or other foods with your bare hands.
- Don't touch Ready to Eat (RTE) foods (example: lettuce, tomatoes, garnishes, breads, etc.) with bare hands

SERVING FOOD SAFELY

- Do not touch the food contact surface of a glass, dish, plate, or utensil.
  - -Hold plates by the bottom or edge.
  - -Hold glasses near the bottom or by the stem.
  - -Hold flatware by the handle.
- Remove ice from an ice machine using a scoop or a tong.

CUSTOMER SELF-SERVICE

Self-service operations such as cafeterias, salad bars, and buffets are popular. Many people handle foods in these establishments; making it even more important to maintain proper holding and serving conditions. Foods must always be served in a way that minimizes contamination.

- Keep foods wrapped or covered when possible. Condiments (ketchup, mustard, etc.) are more hygienic when served in individual packages.
- Reduce contamination to exposed foods by placing an easy to clean, properly constructed "sneeze shield" between the customer and the food.
- Position dishes and utensils in such a way that it reduces handling and contamination by customers.
- Provide an individual utensil for each food item served, to prevent cross contamination of food.
- Store utensils so that customers do not touch food contact surfaces.
- Food utensils should be changed frequently with clean, sanitized utensils.
- Provide customers returning to buffets and salad bars with clean plates.
- **Monitor temperatures of foods: cold foods 41°F or below, hot foods 135°F or above**. *If foods can not be maintained at the required temperatures, a system of time must be developed and approved from the Health Department.
- **Never** refill partially filled pans of food with fresh food.
- **Always** replace empty pans with clean pans of food.

APPROVED SOURCES OF FOOD

All food in food service establishments must be from sources that are approved by the Health Department. For example:

- Meats must have USDA approval.
- Canned products must be processed by commercial canneries.
- Milk must be pasteurized and meet Grade A standards.
- Shellfish must have State or Federal approval.
- All food prepared for the public must be prepared at a location approved by the Health Department.
- **There can be no home preparation of foods or food items brought from home to be used or served in the establishment (unless approved by the Virginia Department of Agriculture and Consumer Services)**

UNWHOLESOME OR ADULTERATED FOOD

An **unwholesome** or **adulterated food** means a food that **is not safe for people to eat**. Examples:

- Food from a swollen, dented, leaking or rusted can
- Moldy food
- Spoiled fish
- The general rule to follow on a questionable food is **"if in doubt, throw it out."**
- Food containers should be clearly identified by labeling the body of the container.

TRANSPORTING FOOD

Food and drinks that are prepared at a food establishment but served at another place must be stored, transported, displayed, and handled in a safe and sanitary manner at all times. When food is transported, the risk of contamination increases.

- Carry all food, serving equipment, and utensils in tightly covered containers or securely wrapped packages to protect them from contamination.
- Transport containers and food carriers must be capable of transporting food at 41°F or below or 135°F or above. Food must arrive at their destination at proper temperatures.
- The health department must approve food carriers and transport containers prior to use. Containers must be smooth, easily cleanable and self-draining. **Styrofoam coolers are prohibited.**

FOOD STORAGE CONTAINERS

Some containers are not approved for food storage. **Unacceptable containers include:**

- Garbage bags
- Galvanized cans
- Containers that previously held chemicals
- Manufacturer containers that previously held foods (example: a sour cream container now used to store cut vegetables)
- Bread, grocery and take-out type bags. If plastic bags are used, they must be made of food grade plastic.

STORING CHEMICALS

Cleaners, pesticides, and sanitizers are chemicals that can cause sickness if they accidentally become mixed with food.

- Store all chemicals away from food items.
- All chemical containers must be properly labeled with the manufacturer label. This label identifies the contents, tells how to use it and includes safety precautions.
- Chemicals should be kept in their original containers.
- Always store chemicals **below** foods and equipment so if spilled, they will not cause contamination.
- Pesticides must be stored separately from food and other chemicals. Storage should be in a cabinet that can be locked or in an area where there is no food preparation or food storage. *Pesticides, maintenance, and cleaning chemicals should be stored separately from each other to prevent accidental use.

PESTS AND PESTICIDES

-Cockroaches, flies, mice, and rats can carry disease and cause damage. Prevention and control of these pests is necessary in maintaining the facility and protecting human health.
-Keep the inside and outside areas clean. Outside garbage must be contained in watertight containers with lids closed. Exclude flies and other pests, especially during the warmer months, by screening doors and windows.
-Pests enter the facility through small holes, gaps, and cracks in and around the facility. A mouse can slip through a space as small as 1/4 inch. Block their entry by eliminating small holes, gaps and cracks.
-If you find pests inside your facility, contact a licensed pest control service. Pest control must be preformed by a licensed pest control applicator or by a person under the direct supervision of one.

GENERAL CLEANING

Thorough cleaning of floors and walls should be done during periods when the least amount of food is exposed, such as after closing or between meals. **General cleaning should be done on a constant and continuous basis. It is never acceptable to have an unclean kitchen**. Even during peak times a kitchen should be operated in a clean and sanitary manner. Cleaning as you go will help minimize the potential for mishandling and cross contaminating foods. Safety hazards and the potential for accidents will also be reduced when employees work in a clean and orderly environment.